Form 3160-5 *(December 1989)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Budget			PPROV No.		0135
Expire	s:	Sept	embe	г 30,	1990

Lease Designation & Serial #:

CT-	070	0	

SUNDRY NOTICES AND REP		SF-079045 6. If Indian, Allottee/Tribe Name
Do not use this form for proposals to drill, deepen o	r reentry to a different reservoir.	o. If Italian, Accorde, in the Main
Use "APPLICATION FOR PERMIT-" f	or such proposate	7. If Unit or CA, Agmt. Design.:
SUBMIT IN TRIP		NE Blanco Unit
1. Type of Well: oil well gas well X	other AtMino, was as a rexico	8. Well Name and No.:
2. Name of Operator: Blackwood & Michols Co.,	, Ltd.	NEBU# 472
3. Address of Operator: P.O. Box 1237, Durango,	CO 81302-1237	9. API Well No.:
4. Location of Well: (Footage, Sec., T., R., M., or S	Survey Description)	30-045-27318
		10. Field & Pool/Expltry Area:
1330' FNL, 1330' FEL - 🕏	ec. 29, T31N, R7W	Basin Fruitland Coal
		11. County or Parish, State:
		San Juan, NM
12. DE CHEC PAPERORI PE AD (S) TO	INDICATE NATURE OF NOTICE, REPORT, OR	OTHER DATA
THE OF SUBMISSION	TYPE OF ACTI	ON
MAR 3 0 1990	Abandonment	Change of Plans
Motice Offician. DIV. —	Recompletion	New Construction
	Plugging Back	Non-Routine Fracturing
Subsequent RepDIST. 3	Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
T That Abandonient Notice	Other: COMPLETION	
	(Note: Report results of mul or Recompletion Report and L	tiple completion on Well Completion og form.)
13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly	directionally drilled, give subsurfa-	ce locations and measured and true

vertical depths for all markers and zones pertinent to this work.)*

Move in and rig up. Inspect 33 jts of drill pipe. 2-06-90

Test blind rams and 7" casing to 2000 psi - held OK. Pick up 6- 1/4" bit, 4-3/4" drill collars, 3-1/2" drill pipe. Test pipe rams 2-07-90 and manifold to 2000 psi - held OK. Drill float at 3027, cement and shoe at 3073'.

> Mix 150 Bbls calcium carbonate mud. Mud weight 10.3 ppg, viscosity 42 sec, water loss 8 cc, ph 8. Displace hole with mud.

hereby certify that the foregoing is true and correct. d: William F. CLA	VR K Tit	le:OPERATIONS MAMAGER	Date: 19/1/an 90
(This space for Federal or State office use)		Acc	spted For Record
Approved ByConditions of approval, if any:	Title	<u> </u>	epted For Record
			Ny !

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency or the United States any false, fictitious or fraudulent statements or representations as to achient the united States any false, fictitious or fraudulent statements or representations as to achient the united States any false, fictitious or fraudulent statements or representations as to achieve the united States any false, fictitious or fraudulent statements or representations as to achieve the united States any false, fictitious or fraudulent statements or representations as to achieve the united States and the united States are statements or representations. Mineral Ros steer

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2-08-90 Drilling Fruitland coal to 3286'.

Coal intervals:
3092' to 3093'
3094' to 3095'
3106' to 3108'
3159' to 3172'
3173' to 3188'
3189' to 3193'
3207' to 3217'
3244' to 3245'
3253' to 3255'
3311' to 3321'
3324' to 3335'

Circulate and condition hole for DST #1. Pick up DST tools. TIH with DST.

Run DST #1 - Upper Pictured Cliffs zone (tongue) from 3264' to 3286'.

2-09-90 POOH with DST #1. Lay down DST tools; tool was plugged, test invalid. TIH with bit, had 26' of fill. Circulate well clean. Raised mud weight from 10.2 to 10.4 ppg and viscosity from 32 to 38 sec while circulating.

Pick up DST tools. 10 minutes flow, 6 oz. on 1/4" hose. 30 minutes SI. 60 minutes flow, 13 oz. decreasing to 6 oz. in 40 minutes; built to 7 oz. at end of flow. 180 minutes SI.

2-10-90 POOH with DST #2. TIH with bit.

Drill from 3274-3336'to TD 3337'. Rig up. Log GR/DI, Density Neutron, Microlog. TIH with bit. Rig up, no fill, and displace hole with water.

DST #1 - Upper Pictured Cliffs zone (tongue) from 3264' to 3286' on 2-08-90 (Baker).

Flow results: initial flow, 10 min. - 3" blow through-out, no gas to surface; initial shut-in, 30 minutes - blow died in 10 minutes; final flow, 90 min. - 1/2" blow throughout, no gas to surface; final shut-in, 80 min. blow died quickly. Recovered 30' of mud in drill pipe. Note, there was 7' of fill on bottom before setting the packers. Test failed due to plugged tools, no pressures obtained.

DST #2 - Upper Pictured Cliffs zone (tongue) from 3256' to 3286' on 2-09-90 (Howco).

Pressures from bomb #2 at 3282' and flow results: initial mud hydrostatic - 1816 psig; initial flow, 10 min. - 40 to 33 psi, gauged 6 oz. on 1/8" line, no gas to surface; initial shut-in, 30 min. - 187 psig; final flow, 60 min. - 33 to 33 psi, gauged 7 to 9 oz., no gas to surface; final shut-in, 180 min. - 1145 psig; final mud hydro-static - 1816 psig. Successful test, bottomhole temperature - 104° F. Recovered 30' of gas-cut mud. Sample chamber - 7 psig: zero gas, zero water, 2240 cc mud.

2-11-90 Circulate at TD with water; returns clear foamy water, very little gas.

Circulate at TD with air, reduce water from 4 BPM to 2 BPM. Moderate 3/4" and smaller coal in returns.

Gauge well, unable to get accurate gauge, well surging from 0-60 psi on 2" line. Shut in for pressure buildup: 1/4 hr - 300 psi; 1/2 hr - 400; 3/4 hr - 420; 1 hr - 440; 1-1/4 hrs - 450; 1-1/2 hrs - 460; 1-3/4 hrs - 470; 2 hrs - 470 psi.

Surge pressure off well. Circulate with various water and air ratios around; light coal in returns.

2-12-90 Cleaning out at with water.

Hole sloughed in, clean out with water, had 3/4" and smaller coal in returns.

Circulate at TD with air and water. Gauge well through 3/4" choke, all wet gauges: 1 hr - 80 psi, 1600 MCFD. Well making 130-150 Bbls water per hour.

2-12-90 Shut in: 1/4 hr - 390 psi; 1/2 hr - 500; 3/4 hr - 540; 1 hr - 580 psi. Surge pressure off well.

Circulate with air and water; light coal in returns.

Shut pump off and circulate with air for 10 minutes, stuck pipe, had heavy 3/4" and less coal in returns and diminished to light.

Circulate at TD with 2 MM air. Slowly reduce water.

2-13-90 Clean out to TD. Put on air and water. Had moderate to heavy 1/8" coal in returns.

Clean out with water. Put on air, reduce water, lost circulation, clean out to TD with water. Circulate at TD with air, water, returns clear. Gauge well through 3/4" choke: 1-1/4 hr - 40-55 psi, 643 to 828 MCFD (wet).

Shut in: 1/4 hr - 250 psi; 1/2 hr - 385; 3/4 hr - 430; 1 hr - 460; 1-1/4 hr - 480; 1-1/2 hrs - 490 psi. Clean out to TD with water. Lost circulation; regain circulation, start cleaning out.

2-14-90 Clean out from with air and water. Pipe stuck, shut in well, build pressure to 180 psi. Pull pipe free. Wash back to bottom with air and water.

Clean out to TD with water. Estimated water production 150 BPH.

2-15-90 Circulate at TD with water. POOH, lay down 4-3/4" drill collars. TIH with bit and 3-1/2" drill pipe. Circulate down to 3336'. Nipple down top BOPs. Nipple up double Cameron BOPs and Cudd snubbing equipment. Test all pipe rams to 2000 psi - held OK.

TIH, tag bridge at 3212', circulate clean. TIH to bottom, had no fill.

- 2-16-90 Pipe stuck at 3212', well shut in. Pressure built to 580 psi, try to work pipe free. Rig down Cudd.
- 2-17-90 Mixing mud. Ran freepoint to 3181'. Displace hole with calcium carbonate weighted mud, weight 10.4ppg, vis 66 sec.
- 2-18-90 Circulated hole with mud, weight 10.4 ppg and vis 56 sec. Well dead. TOH with 3-1/2" drill pipe.

TIH to top of fish at 2907. Srew into fish. POOH with fish. Recovered all of fish, 8 jts 3-1/2" drill pipe, subs and bit. Pick-up 6-1/4" rerun bit, 4-3/4" drill collars, 3-1/2" drill pipe.

TIH to TD at 3337', circulate hole with mud.

2-19-90 Circulated hole clean with mud. TOH and strap drill pipe. Ran 10 5-1/2" liner. Hanger did not set; released setting tool from hanger. TOH with setting tool.

TIH with spear, jars and drill collars on drill pipe. Speared liner and then chained out of the hole. Laid down fishing tools and failed liner hanger.

Pick up new 5-1/2" liner hanger. Set liner. Pull out of liner hanger and displace mud with water. Sting back into the liner and began displacing mud with water in the $6-1/4 \times 5-1/2$ " annulus. Lost 130 bbls. of mud to formation during the prior 24 hours; total lost 420 bbls.

Liner summary: Top at 3017'; Bottom at 3336'; Perforations (8-HPF, 0.625"): 3078 to 3119', 3160 to 3213', 3237 to 3253' and 3296 to 3333'.

2-20-90 Circulate behind liner with water at 3 BPM. Pack off liner. POOH laying down drill pipe. Lay down drill collars.

Pick up 4-1/2" mill. TIH with 2-7/8" tubing; drill plugs in 5-1/2" liner. POOH. TIH with tubing. Nipple down BOP equipment.

Tubing: Set at 3235' with Baker expendable check valve on bottom, Baker F nipple at 3203'.

2-21-90 Nipple down BOP, nipple up tree. Pump off expendable check with water. Test through 3/4" choke: 1-1/2 hrs - 380 MCFD.

Making 150 Bbls water per hour. Rig Released.